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**From:** Walt Sanders  
**Sent:** Wed 10/28/2015 10:21:29 PM  
**Subject:** Letter from Safe Fields Alliance  
[SFA EPA letter revised\(2\).docx](#)

Dear Assistant Administrator Burke, et al:

Attached is a letter from the Safe Fields Alliance to Administrator Gina McCarthy that should serve as a resource for EPA in responding to the recent letter from the House Committee on Energy and Commerce. Giving the fact that the Congressional letter calls for a November 6 return date, we hope the information contained in the SFA letter could help EPA save valuable research time in formulating a thoughtful response.

We look forward to our meeting with you and your team on November 19 to continue our discussions of this important issue.

Please let us know if you have any questions.

Walt A. Sanders

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October 28, 2015

The Honorable Gina McCarthy  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

Dear Administrator McCarthy,

The Safe Field Alliance ("SFA") represents FieldTurf, AstroTurf, and SprintTurf. These three companies collectively represent two-thirds of the United States artificial turf market. The SFA reviewed the letter from the Energy and Commerce Committee to the EPA which requests a response by Friday, November 6<sup>th</sup>. It is unfortunate that the media has chosen to sensationalize and politicize an issue involving the safety of our children. The SFA has over the years, individually and collectively, spent significant resources ensuring these fields are safe. This includes cooperating with the EPA and CPSC a few years ago in conducting a limited number of tests that validated the safety of crumb rubber fields. We have attached a factual response to the questions raised which hopefully provides you with some useful information in formulating your response. In addition, please note the following:

1. Every modern artificial turf field with crumb rubber is certified to have less carcinogenic heavy metals than the safe standard set by the CPSC for children's toys (100ppm) and the safe standard set by the EPA for urban/rural soils (400ppm). This standard has been tested several times by independent peer reviewed studies including studies done by the states of Connecticut and Massachusetts. These standards have also been tested by world renowned labs such as Labosport and various academic institutions. In addition, these same studies have also tested crumb rubber fields against the Prop 65 standard and the very rigorous California Human Health Screening Levels (CHHSL) guidelines. It is telling that there has not been a single, published, study that shows crumb rubber fields not being in compliance with these rigorous benchmarks..
2. Adolescent lymphoma and leukemia, which is the predominant cancer being discussed by the goalie controversy, is also the most prevalent childhood/adolescent cancer in the general population. It is very important to note that decades of medical research have never linked this type of cancer to chemical exposure of any kind.
3. While the SFA produces and sells artificial turf and does not manufacture crumb rubber, it is important to note that crumb rubber is widely used in many other applications such as hospital flooring, surgical gloves, garden hoses, etc. For over a decade and a half, crumb rubber has

proven to be a safe, durable "safe layer" preventing player injuries.

4. In a harsh rush to judgment, many schools influenced by the media frenzy are moving to alternative infill systems such as organic infills. Organics are mostly imported. Organics tend to dehydrate and if not monitored for moisture and watered periodically will harden causing player injuries and resulting in field failures. Other infills are largely untested and have not been studied for long term impact on player safety and field durability.


Finally, we want to remind you that artificial turf fields increase play time by a factor of four or five while eliminating harmful pesticides and insecticides. One artificial turf field will typically save 100,000 gallons of water while recycling approximately 20,000 tires from a landfill.

Thank you for considering the facts and science we have included.

Sincerely,



Darren Gill  
Vice-President, Marketing  
FieldTurf



Rom Reddy  
Managing Partner  
Sprinturf



Heard Smith  
President  
Astroturf



## Response to Questions

### **Question 1**

It is our understanding that the EPA has not conducted any additional studies. However, there have been several non-industry, peer reviewed studies published since 2009. Not one single study has found data that would contradict the EPA's 2009 findings. An excerpt from the 2015 Connecticut Department of Public Health Memorandum is as follows:

*"Thus, CT DPH finds no scientific support for a finding of elevated cancer risk from inhalation or ingestion of chemicals derived from recycled tires used on artificial turf fields... In summary, federal and state authorities have taken seriously the concerns that artificial turf fields may present a health risk due to contaminants in recycled rubber. The best way to investigate these concerns is via an exposure investigation. Studies conducted in Connecticut and elsewhere have shown a very low exposure potential, less than from typical outdoor sources of air pollution. The current news reports of a list of soccer players with cancer does not constitute a correlation or causality and thus raises a concern that currently lacks scientific support. Thus, the CT DPH position expressed in 2011 at the conclusion of the Connecticut study, that outdoor artificial turf fields do not represent an elevated health risk, remains unchanged."*

### **Question 2**

We are not aware of additional studies done by the CPSC or Center for Disease Control since the EPA's 2009 statement. However, in addition to the CT study, MA conducted a study. Excerpts are provided below.

*"In summary, the scientific literature continues to suggest that exposure opportunities to artificial turf fields are generally not expected to result in health effects. Testing results on the crumb rubber infill indicated lead content less than CPSIA statutory limits established for children's products."*

### **Question 3**

A list of all published studies that we are aware of is at this link, for your review:

<http://www.syntheticturfCouncil.org/?page=Research>. An evaluation of these studies will show that no published study has any scientific data that will cause the EPA to contradict the conclusion reached in 2009 that crumb rubber provides no more risk to human health than the surrounding environment.

### **Question 4**

Trace levels of chemicals are present in our everyday life. Chemical exposure of any kind must be measured against a base level of some kind. Artificial turf with crumb rubber uses children's toys and urban/rural soils as a standard. Every crumb rubber field has less carcinogenic chemicals than the standard set by the CPSC for children's toys and the EPA for urban/rural soils. See excerpts below from the analysis done in 2015 by David Teter Engineering vs 2 other base lines. Other uses for crumb rubber are for hospital flooring, surgical gloves, garden hoses, and a host of other applications.

*"The California Human Health Screening Levels (CHHSL) provides guidelines for 18 heavy metals of concern and set limits that are highly protective of human health. None of the crumb rubber samples tested by Teter Engineering exceeded the proposed guideline values for heavy metals."*

*"The results of this analysis show that the additional cancer risk from exposure to PAH's and arsenic in crumb rubber in a recreational use scenario is both below the EPA 1E-06 de minimis risk level and is indistinguishable from exposure to PAH's and arsenic in urban and rural soils."*

#### **Question 5**

Every independent, published and in many cases, peer reviewed study will show less carcinogenic chemicals in artificial turf fields with crumb rubber than the safe standard for children's toys and urban/rural soils. When there is a single minded focus on proving a cluster, then there always is a tendency to overlook all the factors that prove a non cluster. To our knowledge, there is no data that shows greater risk for any group or any sport more than the risk from the surrounding environment.

#### **Questions 6**

This question is difficult to answer since there is no good data on how many individuals play soccer regularly on artificial turf with crumb rubber. In fact, the data set would need to be expanded to individuals who play any sport on artificial turf with crumb rubber including thousands of fields used for American football. We do know that there are approximately 16,000 children and adolescents (aged 0-19) expected to have been diagnosed with some form of cancer in 2014 (Ward et al, 2014) and we do know that lymphoma and leukemia (the same cancer impacting the soccer goalies) are the most common types of cancer that develop in children and adolescents (Ward et al, 2014). Despite the extensive media coverage and a proactive effort to solicit and identify cancer cases that may have been caused by crumb rubber exposure, there were approximately 60 cases identified per NBC news. To our knowledge, these cases have not been studied or documented to understand their correlation to crumb rubber or any other factors.

#### **Question 7**

While there is no medical research that has linked community based clusters of the cancers at issue here to any identifiable, external chemical cause, we have attached an article questioning the origin of gloves and other paraphernalia. (<http://www.environmentalleader.com/2014/05/21/toxic-chemicals-in-world-cup-soccer-gear-greenpeace-says/>).

#### **Question 8**

Some models have been developed in this regard. We quote excerpts from the Teter study:

*"In order to better understand these results, Teter Engineering developed a human health risk assessment model to estimate the additional risk from exposure to carcinogenic PAH's for an enthusiastic soccer player practicing on synthetic turf for up to 300 days/year from ages four to thirty. The estimated additional cancer risk from exposure to carcinogenic PAH's falls below 1 in 1 million for all tested domestic infill samples. The US EPA considers an additional cancer risk of less than one in one million, a de minimis risk. The additional cancer risk from background levels of carcinogenic PAH's and arsenic in urban and rural surface soils was found to be indistinguishable from the additional cancer risk from playing soccer on synthetic turf with domestic crumb rubber."*

#### **Question 9**

We are not aware of the EPA doing any further work after the 2009 study. However there have been

several published studies covering the three pathways for exposure – 35 plus studies on inhaling toxicity, 30 plus studies on ingestion toxicity, and 15 plus studies on dermal toxicity. No published study has come up with any data that could cause the EPA to reconsider its 2009 conclusion that crumb rubber fields pose no health risk.

#### **Question 10**

As discussed earlier, the industry certifies every modern turf field to comply with the US toy standard for heavy metals and the US standard for heavy metals in urban/rural soils. In addition, every study of carcinogenic PAH's has found the trace level of carcinogenic PAH's in crumb rubber to be consistent with trace levels found in urban/rural soils. Various studies have also tested artificial turf with crumb rubber vs the rigorous EN71-3 E.U. toy standard, California's Prop 65 standard and the recently developed California Human Health Screening Level guidelines. In every case, crumb rubber fields have tested lower and usually significantly lower than these standards.